

Claim 24 (new)

- 1 24. The method of claim 23 wherein said neurodegenerative disease is selected from the
2 group consisting of Alzheimer's Disease, Parkinson's Disease, and Huntington's Disease.

Claim 25 (new)

- 1 25. The method of claim 23 wherein said aberrant form of tau is P301L, associated with
2 "fronto-temporal dementia with Parkinson's linked to chromosome 17 (FTDP-17)".

Claim 26 (new)

- 1 26. The method of claim 23 wherein said neuropathology is characterized as
2 neurofibrillary tangles.

Claim 27 (new)

- 1 27. The method of claim 23, wherein said somatically transferring comprises injecting
said gene into pre-selected areas of the brain of said living rodent.

Claim 28 (new)

- 1 28. The method of claim 23, wherein said brain tissue comprises nigrastratial neurons,
2 septalhippocampal neurons, or both.

Claim 29 (new)

- 1 29. A method for inducing neuropathology in the brain of a non-human animal which
2 comprises injecting into the brain of said animal an effective amount of gene expression
3 construct encoding tau, alpha-synuclein, presenilin-1, amyloid precursor protein, or IL6,
4 or combinations thereof.

Claim 30 (new)

- 1 30. A method for inducing behavioral changes in a living rodent which comprises
2 somatically transferring a gene encoding an aberrant form of tau protein directly into the
3 brain of said living rodent.

Claim 31 (new)

- 1 31. The method of claim 30 wherein somatically transferring comprises injecting an
2 effective amount of gene expression construct encoding tau into the brain of said living
3 rodent.

Claim 32 (new)

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1 32. The method of claim 30 wherein somatically transferring comprises injecting an
2 effective amount of gene expression construct encoding tau, alpha-synuclein, presenilin-
3 1, amyloid precursor protein, and IL6.

Claim 33 (new)

- 1 33. The method of claim 30, wherein somatically transferring is achieved by using an
2 adeno-associated viral vector.

Claim 34 (new)

- 1 34. A composition comprising at least one gene construct adapted for producing a non-
2 human animal model of a human or non-human-animal neurodegenerative disease by
3 transferring at least one aberrant form of at least one gene known to be associated with
4 said disease in humans or non-human animals into brain tissue of a living rodent under
5 conditions which result in the expression of said at least one gene, wherein said
6 transferring does not require the modification of the germ-line of said living animal,
7 where said composition comprises a gene encoding an aberrant tau protein in a vector
8 construct which results in active expression of said gene upon introduction into said
9 tissue, and wherein said living animal is a rat or mouse.